In EPA's December 2, 2005 Data Gaps Memo, EPA recommended a contaminant fate and transport modeling domain that extended from RM 0 to 12 with a separate component for Swan Island Lagoon. EPA further recommended that the river should initially be broken into ½ mile segments with each ½ mile segment further divided parallel to river flow into east and west sides of the river. EPA also stated that further refinements that consider physical features and contaminant sources within Portland Harbor.

In this SOW, EPA refined the fate and transport segments based on a consideration of areas of potential concern as identified in the Data Gaps Memo, physical features such as habitat areas, grain size, modeled bottom shear forces, river bathymetry and the presence of the shipping channel. At total of 12 segments were identified. The main channel of the river was further divided into three sections; east and west bank near shore areas and a center channel section based on river bathymetry morphology, shoreline variation, existing remedial activity boundaries and bottom shear. The -35' NAVD88 (-40 CRD) bathymetric contour from the David Evans 2004 survey was generally used as a basis for creating the latitudinal river divisions. Another section was included for the upper end of Swan Island Lagoon. This resulted in 37 river segments. In addition to these segments, the fate and transport modeling effort will have to consider the upper end of the site (e.g., RM 16 – 11.8, the lower Mainstem (RM 0 – 1.8) and the upper end of Multnomah Channel. The following table summarizes the fate and transport sections.

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Fate and Transport Segment	AOPC(s)	Physical Considerations
RM 10.4 – 11.8	Upstream of upstream-most AOPC (Sulzer) to upper end of navigation channel (Broadway Bridge)	Higher bottom shear
RM 10 – 10.4	Sulzer and Goldendale/UPRR	Higher bottom shear in above RM 10
RM 9.4 – 10	Fireboat/GE and Outfall 47	Moderate bottom shear in channel; depositional in nearshore (AOPC) areas.
RM 8.2 – 9.4	Gunderson	River becoming more depositional – in particular along west bank; habitat areas along east bank.
Upper End of Swan Island Lagoon	Swan Island Lagoon	Depositional Off Channel Area; selected in part to be consistent with RM 8.2 – 9.4 segment
RM 7.5 – 8.2	Willbridge and Lower Swan Island Lagoon (Shipyard)	Entrance to Swan Island Lagoon, downstream end of Willbridge embayment, upstream end of Triangle Park embayment.
RM 6.9 – 7.5	Arkema	Upstream of higher bottom shear encountered at railroad bridge.
RM 6.0 – 6.9	GASCO and Siltronic	High bottom shear
RM 5.3 – 6.9	U.S. Moorings, St. Johns West and MarCom	Area of mixed bottom shear; habitat considerations along east bank (upper end) and west bank (lower end).
RM 4.7 – RM 5.3	PAH smear; presence of bulk fuel facilities (Shore Terminals,	Lower bottom shear below MR 5.3; deep hole off Terminal 4.

	ExxonMobil and ARCO).	
RM 4.1 – 4.7	Terminal 4 Early Action Area	Linnton area beaches.
RM 3.4 – 4.1	Time Oil/Premier and Schnitzer Burgard	Higher bottom shear along west bank; upstream of habitat areas near entrance to Multnomah Channel.
RM 1.8 – 3.4	Oregon Steel Mills	Bend in river; depositional area, habitat considerations near entrance to Multnomah Channel and along Sauvie Island.